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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/805,917

03/22/2004

John G. Bartkowiak

028-0124-1

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03/02/2005

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EXAMINER

OPSASNICK, MICHAEL N

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/805,917	Applicant(s) BARTKOWIAK, JOHN G.	
	Examiner Michael N. Opsasnick	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/19/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 1 of the specification, examiner requests applicant to update the dependency information of the current application. (The dependency information refers to application # 09/160415, which is now patent US 6711540).

Appropriate correction is required.

Allowable Subject Matter

2. Claims 1-10 are allowable over the prior art of record.
3. The following is a statement of reasons for the indication of allowable subject matter: As per the independent claim, claim 1, the recited limitations pertaining to performing multiple energy value calculations on a plurality of subsequent frames, and repeating these calculations/comparison until there is a comparison of the energy of the past two frames, is not explicitly taught by the prior art of record.

Claim Rejections - 35 USC § 103

Art Unit: 2655

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Benyassine et al (5774849) in view of Lee et al (4689760).

As per claims 11,22,31, Benyassine et al (5774849) teaches a frame based time input signal having at least one tone (incoming speech signal, Col. 2 lines 54-67) comprising energy signal level indicative of the input signal (as calculating frame energy -- Fig. 2, subblock 205); a signal filter generating a noise indicator (as calculating background noise thresholds --Fig. 2, subblock 245, col. 3 lines 44-51); a dynamic threshold determiner generating an energy threshold for each frame portion based on a value of the energy signal during a previous frame portion (as Fig. 2 subblocks 230,235,240, and col. 3 lines 34-50); a signal processor receiving the energy threshold, the noise indicator, and the energy signal, and determining the aforementioned parameters (as VAD process, col. 3 line 7 - col. 7 line 15).

Benyassine et al (5774849) does not explicitly teach multiple tones/frequency detection, however, Lee et al teaches spectral analysis for such detection (abstract). Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Benyassine et al (5774849) with multiple tones/frequency detection as taught in Lee et al because it would

Art Unit: 2655

advantageously allow for touch tone control and recognition in a voice messaging system (Lee et al, col. 3 lines 45-50).

As per claims 12,23,25-28, Benyassine et al (5774849) teaches updating average frame energies from previous frames (Fig. 2 subblocks 205,210, and 215);

As per claims 13, Benyassine et al (5774849) teaches time domain based calculation (col. 4 lines 60-65), and based on frequency coefficients (LSF's -- col. 3, line 53-66, wherein LSF's are created by the Fourier transform)

As per claims 14-21,24,29,30 Benyassine et al (5774849) teaches energy based noise threshold decisions (col. 7 lines 5-30); separating into low band energies (col. 4 lines 13-22; col. 5 lines 33-39); averaging (col. 4 lines 45-52); interframe comparison within a range(col. 3 lines 39-50); and normalization (as normalizing with the alpha parameter (col. 4 lines 40-45).

Conclusion

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Art Unit: 2655

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9am-4pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno

3/1/05



DAVID L. OMETZ
PRIMARY EXAMINER